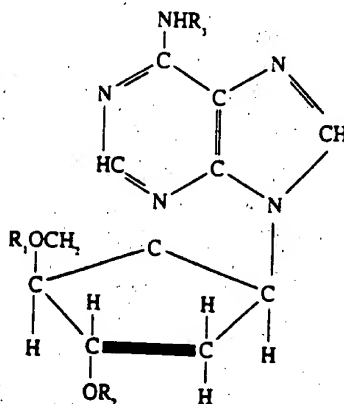


**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-47 (cancelled).

48 (previously presented). A method of enhancing the delivery of exogenous deoxyribonucleosides to the tissue of an animal, comprising the step of administering to said animal an effective amount of an acyl derivative of 2'-deoxyadenosine, having the formula

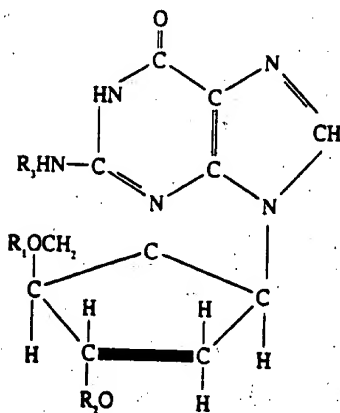


wherein R<sub>1</sub>, R<sub>2</sub>, and R<sub>3</sub> are the same or different and each is hydrogen or an acyl group derived from

- (a) an unbranched fatty acid with 3 to 22 carbon atoms,
- (b) an amino acid selected from the group consisting of glycine, the L forms of alanine, valine, leucine, isoleucine, tyrosine, proline, hydroxyproline, serine, threonine, cysteine, aspartic acid, glutamic acid, arginine, lysine, histidine, carnitine, and ornithine,
- (c) nicotinic acid, or

(d) a dicarboxylic acid having 3 to 22 carbon atoms, provided that not all of  $R_1$ ,  $R_2$ , and  $R_3$  are H, and where  $R_3$  is not H, then  $R_1$  and/or  $R_2$  may also be acetyl, or a pharmaceutically acceptable salt thereof.

49 (previously presented). A method of enhancing the delivery of exogenous deoxyribonucleosides to the tissue of an animal, comprising the step of administering to said animal an effective amount of an acyl derivative of 2'-deoxyguanosine having the formula

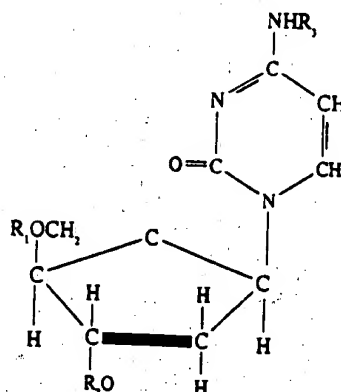


wherein  $R_1$ ,  $R_2$ , and  $R_3$  are the same or different and each is hydrogen or an acyl group derived from

- (a) an unbranched fatty acid with 3 to 22 carbon atoms,
- (b) an amino acid selected from the group consisting of glycine, the L forms of alanine, valine, leucine, isoleucine, tyrosine, proline, hydroxyproline, serine, threonine, cysteine, aspartic acid, glutamic acid, arginine, lysine, histidine, phenylalanine, carnitine, and ornithine,
- (c) nicotinic acid, or

(d) a dicarboxylic acid having 3 to 22 carbon atoms, provided that not all of  $R_1$ ,  $R_2$ , and  $R_3$  are H, and where  $R_3$  is not H, then  $R_1$  and/or  $R_2$  may also be acetyl, or a pharmaceutically acceptable salt thereof.

50 (previously presented). A method of enhancing the delivery of exogenous deoxyribonucleosides to the tissue of an animal, comprising the step of administering to said animal an effective amount of an acyl derivative of 2'-deoxycytidine, having the formula

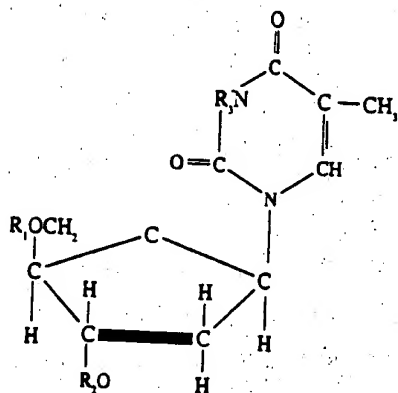


wherein  $R_1$ ,  $R_2$ , and  $R_3$  are the same or different and each is hydrogen or an acyl group derived from

- (a) an unbranched fatty acid with 3 to 22 carbon atoms,
- (b) an amino acid selected from the group consisting of glycine, the L forms of alanine, valine, leucine, isoleucine, tyrosine, proline, hydroxyproline, serine, threonine, cysteine, aspartic acid, glutamic acid, arginine, lysine, histidine, carnitine, and ornithine,
- (c) nicotinic acid, or

(d) a dicarboxylic acid having 3 to 22 carbon atoms, provided that not all of  $R_1$ ,  $R_2$ , and  $R_3$  are H, and where  $R_3$  is not H, then  $R_1$  and/or  $R_2$  may also be acetyl, or a pharmaceutically acceptable salt thereof.

51 (previously presented). A method of enhancing the delivery of exogenous deoxyribonucleosides to the tissue of an animal, comprising the step of administering to said animal an effective amount of an acyl derivative of 2'-deoxythymidine, having the formula

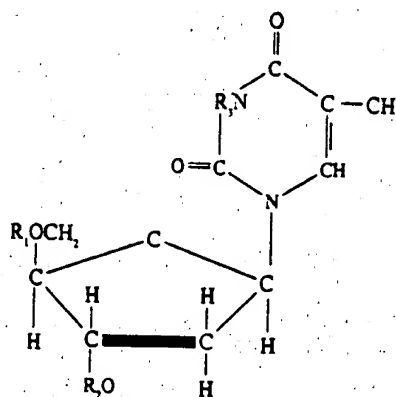


wherein  $R_1$  is an acyl group derived from

- (a) an unbranched fatty acid with 3 to 15 or 17 to 22 carbon atoms,
- (b) an amino acid selected from the group consisting of glycine, the L forms of alanine, valine, leucine, isoleucine, tyrosine, proline, hydroxyproline, serine, threonine, cysteine, aspartic acid, glutamic acid, arginine, lysine, histidine, carnitine, and ornithine,
- (c) nicotinic acid, or

(d) a dicarboxylic acid having 3 to 22 carbon atoms, and  $R_2$  and  $R_3$  are H, or a pharmaceutically acceptable salt thereof.

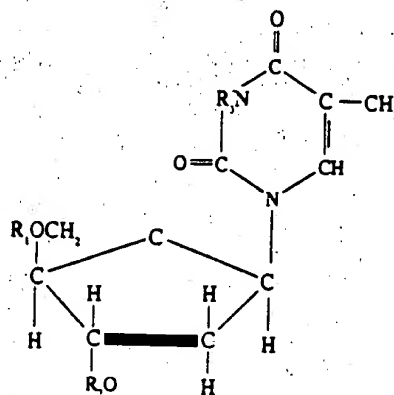
52 (previously presented) A method of enhancing the delivery of exogenous deoxyribonucleosides to the tissue of an animal, comprising the step of administering to said animal an effective amount of an acyl derivative of 2'-deoxythymidine, having the formula



wherein  $R_1$  is H,  $R_2$  is an acyl group derived from

- (a) an unbranched fatty acid with 3 to 13 or 15 to 22 carbon atoms,
- (b) an amino acid selected from the group consisting of glycine, the L forms of alanine, valine, leucine, isoleucine, tyrosine, proline, hydroxyproline, serine, threonine, cysteine, aspartic acid, glutamic acid, arginine, lysine, histidine, carnitine, and ornithine,
- (c) nicotinic acid, or
- (d) a dicarboxylic acid with 3 to 22 carbon atoms, and  $R_3$  is H or a pharmaceutically acceptable salt thereof.

53 (previously presented). A method of enhancing the delivery of exogenous deoxyribonucleosides to the tissue of an animal, comprising the step of administering to said animal an effective amount of an acyl derivative of 2'-deoxythymidine, having the formula

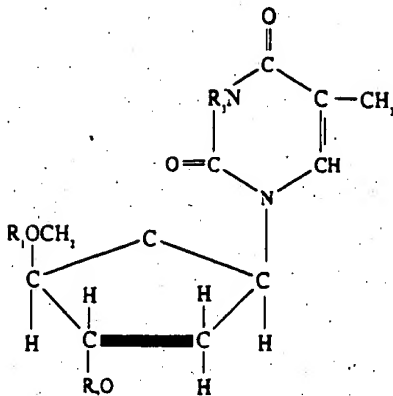


wherein R<sub>1</sub> and R<sub>2</sub> are the same or different and each is an acyl group derived from

- (a) an unbranched fatty acid with 5 to 22 carbon atoms,
- (b) an amino acid selected from the group consisting of glycine, the L forms of alanine, valine, leucine, isoleucine, tyrosine, proline, hydroxyproline, serine, threonine, cysteine, aspartic acid, glutamic acid, arginine, lysine, histidine, carnitine, and ornithine,
- (c) nicotinic acid, or
- (d) a dicarboxylic acid with 3 to 22 carbon atoms, and R<sub>3</sub> is H or a pharmaceutically acceptable salt thereof.

54 (previously presented). A method of enhancing the delivery of exogenous deoxyribonucleosides to the tissue of an animal, comprising the step of administering to

said animal an effective amount of an acyl derivative of 2'-deoxythymidine, having the formula

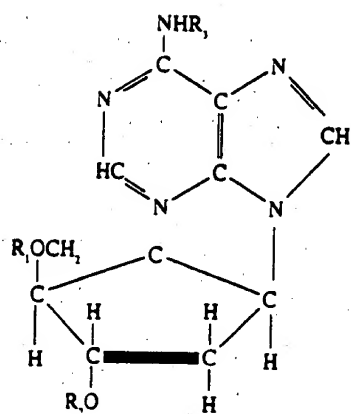


wherein R<sub>1</sub> and R<sub>2</sub> are the same or different and each is an acyl group derived from

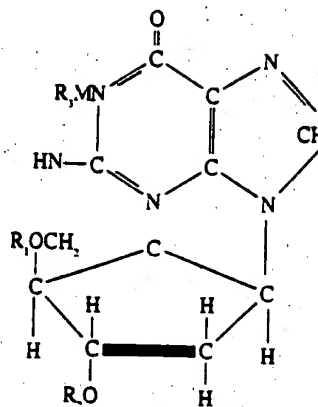
- (a) an unbranched fatty acid with 2 to 22 carbon atoms,
- (b) an amino acid selected from the group consisting of glycine, the L forms of alanine, valine, leucine, isoleucine, tyrosine, proline, hydroxyproline, serine, threonine, cysteine, aspartic acid, glutamic acid, arginine, lysine, histidine, carnitine, and ornithine,
- (c) nicotinic acid or
- (d) a dicarboxylic acid with 3 to 22 carbon atoms, and R<sub>3</sub> is an acyl group derived from an optionally substituted benzoyl or heterocyclic carboxylic acid that is substantially nontoxic, or a pharmaceutically acceptable salt thereof.

55 (previously presented). A method of enhancing the delivery of exogenous deoxyribonucleosides to the tissue of an animal, comprising the step of administering to

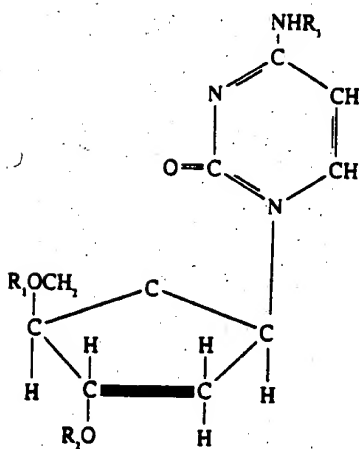
said animal an effective amount of each of at least two compounds selected from at least two of the groups of compounds having formulae



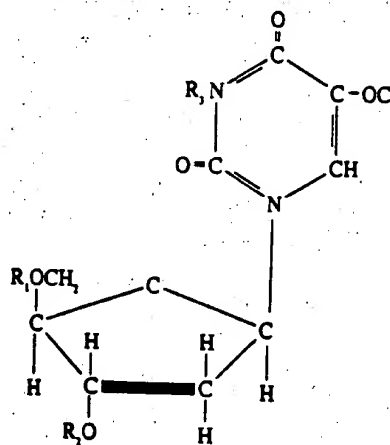
(I)



(II)



(III)



(IV)

wherein  $R_1$ ,  $R_2$ , and  $R_3$  are the same or different and each is H or an acyl group derived from a carboxylic acid, provided that at least one of said substituents  $R_1$ ,  $R_2$ ,



and  $R_3$  on each of said groups of compounds is not hydrogen, or pharmaceutically acceptable salts thereof.

Claims 56-63 (cancelled).